Fujitsu recommends Windows 8 Pro.

# Data Sheet
# Fujitsu CELSIUS M720 Workstation

## Your "Thoroughbred" Workstation

If you're looking for reliable performance when using demanding applications, the Fujitsu CELSIUS M720 single-processor workstation meets your needs. It can be individually configured, helping you to enhance your productivity. It features best-in-class noise emissions of only 20 dB for a quiet and efficient working environment. Comprehensive ISV certifications ensure your applications run smoothly. Finally, the convenient cold plug access at front simplifies subsequent expansion.

**Performance**
Higher productivity
- High performance multi-core processor, next generation graphics subsystems, quad-channel memory technology and high-speed hard disk drives

**Ergonomics**
Noise-reduced system engineered in Germany
- Optimized thermal management, low-noise chassis and silent fans

**Reliability**
System stability for the complete lifecycle
- High product standards thanks to top-quality components and comprehensive testing in certified in-house laboratories for 24/7 operation

**Certification of workstation applications**
Stability, compatibility and performance for the main workstation applications
- Comprehensive support for ISV applications and ease of integration into existing IT networks

**Expandability**
Excellent expandability for future demands
- Increased memory capacities of up to 128 GB

Green IT

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# Components

| | |
|---|---|
| **Processor** | Intel® Xeon® processor E5-2690 (8 Cores / 16 Threads, 2.90 GHz, up to 3.8 GHz, 20 MB, 8.0 GT/s ) |
| | Intel® Xeon® processor E5-2680 (8 Cores / 16 Threads, 2.70 GHz, up to 3.5 GHz, 20 MB, 8.0 GT/s ) |
| | Intel® Xeon® processor E5-2670 (8 Cores / 16 Threads, 2.60 GHz, up to 3.3 GHz, 20 MB, 8.0 GT/s ) |
| | Intel® Xeon® processor E5-2667 (6 Cores / 12 Threads, 2.90 GHz, up to 3.5 GHz, 15 MB, 8.0 GT/s ) |
| | Intel® Xeon® processor E5-2665 (8 Cores / 16 Threads, 2.40 GHz, up to 3.1 GHz, 20 MB, 8.0 GT/s ) |
| | Intel® Xeon® processor E5-2660 (8 Cores / 16 Threads, 2.20 GHz, up to 3.0 GHz, 20 MB, 8.0 GT/s ) |
| | Intel® Xeon® processor E5-2650L (8 Cores / 16 Threads, 1.80 GHz, up to 2.3 GHz, 20 MB, 7.2 GT/s ) |
| | Intel® Xeon® processor E5-2650 (8 Cores / 16 Threads, 2.00 GHz, up to 2.8 GHz, 20 MB, 8.0 GT/s ) |
| | Intel® Xeon® processor E5-2643 (4 Cores / 8 Threads, 3.30 GHz, up to 3.5 GHz, 10 MB, 8.0 GT/s ) |
| | Intel® Xeon® processor E5-2640 (6 Cores / 12 Threads, 2.50 GHz, up to 3.0 GHz, 15 MB, 7.2 GT/s ) |
| | Intel® Xeon® processor E5-2637 (2 Cores / 4 Threads, 3.00 GHz, up to 3.2 GHz, 5 MB, 8.0 GT/s ) |
| | Intel® Xeon® processor E5-2630L (6 Cores / 12 Threads, 2.00 GHz, up to 2.5 GHz, 15 MB, 6.4 GT/s) |
| | Intel® Xeon® processor E5-2630 (6 Cores / 12 Threads, 2.30 GHz, up to 2.8 GHz, 15 MB, 7.2 GT/s ) |
| | Intel® Xeon® processor E5-2620 (6 Cores / 12 Threads, 2.00 GHz, up to 2.5 GHz, 15 MB, 7.2 GT/s ) |
| | Intel® Xeon® processor E5-2609 (4 Cores / 8 Threads, 2.40 GHz, 10 MB, 6.4 GT/s) |
| | Intel® Xeon® processor E5-2603 (4 Cores / 8 Threads, 1.80 GHz, 10 MB, 6.4 GT/s) |
| | Intel® Xeon® processor E5-1660 (6 Cores / 12 Threads, 3.30 GHz, up to 3.9 GHz, 15 MB, 8.0 GT/s ) |
| | Intel® Xeon® processor E5-1650 (6 Cores / 12 Threads, 3.20 GHz, up to 3.8 GHz, 12 MB) |
| | Intel® Xeon® processor E5-1620 (4 Cores / 8 Threads, 3.60 GHz, up to 3.8 GHz, 10 MB) |
| | Intel® Xeon® processor E5-1607 (4 Cores / 8 Threads, 3.00 GHz, 10 MB) |
| | Intel® Xeon® processor E5-1603 (4 Cores / 8 Threads, 2.80 GHz, 10 MB) |
| **Operating systems** | |
| **Operating system** | Windows® 7 Professional 64-bit<br>Windows® 7 Home Premium 64-bit |
| **Operating system compatible** | Windows 8<br>Windows® 7 Professional 32-bit<br>Windows® XP Professional x64 Edition<br>Windows® XP Professional<br>Windows® Server 2008 R2<br>Linux |
| **Operating system notes** | Certified for Red Hat® Enterprise Linux<br>Certified for SUSE Enterprise Desktop<br>Certified for SUSE Enterprise Server<br>For some configurations third party drivers are currently not available or configuration restrictions may apply.<br>SCU ports are not supportet for Windows® XP 32bit (restriciton by Intel®). Therefore an additional storage controller (D2607 or D2616) is necessary.<br>Limited Windows® XP support. Microsoft discontinued Windows® XP certification on system level, basic drivers via http://support.ts.fujitsu.com |
| **Memory modules** | 2 GB (1 module(s) 2 GB) DDR3, ECC, 1600 MHz, PC3-12800 |
| | 4 GB (1 module(s) 4 GB) DDR3, ECC, 1600 MHz, PC3-12800 |
| | 8 GB (1 module(s) 8 GB) DDR3, ECC, 1600 MHz, PC3-12800 |
| | 8 GB (1 module(s) 8 GB) DDR3, registered, ECC, 1600 MHz, PC3-12800 |
| | 16 GB (1 module(s) 16 GB) DDR3, registered, ECC, 1600 MHz, PC3-12800 |

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|---|---|
| **Graphics** | GPU computing card: NVIDIA® Tesla™ K20, 2496 cores, PCIe x16 |
| | Remote Graphics: CELSIUS RemoteAccess Dual Card, PCIe x1, 2x DVI-I, PCoIP |
| | Remote Graphics: CELSIUS RemoteAccess Quad Card, PCIe x1, 2x DVI-I, PCoIP |
| | Ultra-high-end 3D: NVIDIA® Quadro® 6000, 6 GB, 448 cores, PCIe x16, 1x DVI-I, 2x DisplayPort |
| | Ultra-high-end 3D: NVIDIA® Quadro® K5000, 4 GB, 1536 cores, PCIe x16, 1x Dual Link DVI-I, DVI-D, 2x DisplayPort |
| | High-end 3D: AMD FirePro™ W7000, 4 GB, 1280 stream processors, PCIe x16, 4 x DisplayPort |
| | High-end 3D: NVIDIA® Quadro® K4000, 3 GB, 768 cores, PCIe x16, 1x Dual Link DVI-I, 2x DisplayPort |
| | High-end 3D: NVIDIA® Quadro® 4000, 2 GB, 256 cores, PCIe x16, 1x Dual Link DVI-I, 2x DisplayPort |
| | Midrange 3D: NVIDIA® Quadro® K2000D, 2 GB, 384 cores, PCIe x16, 2x Dual Link DVI-I |
| | Midrange 3D: NVIDIA® Quadro® 2000D, 1 GB, 192 cores, PCIe x16, 2x Dual Link DVI-I |
| | Midrange 3D: NVIDIA® Quadro® K2000, 2 GB, 384 cores, PCIe x16, 1x Dual Link DVI-I, 2x DisplayPort |
| | Midrange 3D: NVIDIA® Quadro® 2000, 1 GB, 192 cores, PCIe x16, 1x Dual Link DVI-I, 2x DisplayPort |
| | Midrange 3D: AMD FirePro™ W5000, 2 GB, 768 cores, PCIe x16, 1x Dual Link DVI-I, 2x DisplayPort |
| | Entry 3D: AMD FirePro™ V4900, 1 GB, 480 stream processors, PCIe x16, 1x Dual Link DVI-I, 2x DisplayPort |
| | Entry 3D: NVIDIA® Quadro® K600, 2 GB, 192 cores, PCIe x16, 1x Dual Link DVI-I, 1x DisplayPort |
| | Entry 3D: NVIDIA® Quadro® 600, 1 GB, 96 cores, PCIe x16, 1x Dual Link DVI-I, 1x DisplayPort |
| | Entry 3D: AMD FirePro™ V3900, 1 GB, 480 stream processors, PCIe x16, 1x Dual Link DVI-I, 1x DisplayPort |
| | Entry 3D: NVIDIA® Quadro® 410, 512 MB, 192 cores, PCIe x16, 1x DVI-I, 1x DisplayPort |
| | Professional 2D: NVIDIA® Quadro® NVS 310, 512 MB, 16 cores, PCIe Gen2 x16, 2x DisplayPort |
| | Professional 2D: NVIDIA® Quadro® NVS 510, 2 GB, 16 cores, PCIe Gen2 x16, 4x miniDP |
| | Professional 2D: NVIDIA® Quadro® NVS 450, 512 MB, 2 x 8 cores, PCIe x16, 4 x DisplayPort |
| | Professional 2D: NVIDIA® Quadro® NVS 300, 512 MB, 16 cores, PCIe Gen2 x16, 2x LFH59 (DP/DVI-I) |
| | GPU computing card: NVIDIA® Tesla™ C2075, 6 GB, 448 cores, PCIe x16, 1x DVI-I |
| **Hard disk drives (internal)** | SSD SATA III Premium, 256 GB, 2.5-inch |
| | SSD SATA III Premium, 128 GB, 2.5-inch |
| | SSD SATA III, 512 GB, 2.5-inch |
| | SSD SATA III, 256 GB, 2.5-inch |
| | SSD SATA III, 128 GB, 2.5-inch, SED |
| | SSD SATA III, 128 GB, 2.5-inch |
| | HDD SATA III, 10000 rpm, 1000 GB, 2.5-inch, business critical |
| | HDD SATA III, 10000 rpm, 600 GB, 3.5-inch |
| | HDD SATA III, 10000 rpm, 600 GB, 2.5-inch |
| | HDD SATA III, 10000 rpm, 500 GB, 2.5-inch, business critical |
| | HDD SATA III, 7200 rpm, 4000 GB, 3.5-inch, business critical |
| | HDD SATA III, 7200 rpm, 3000 GB, 3.5-inch, business critical |
| | HDD SATA III, 7200 rpm, 2000 GB, 3.5-inch |
| | HDD SATA III, 7200 rpm, 1000 GB, 3.5-inch, business critical |
| | HDD SATA III, 7200 rpm, 1000 GB, 3.5-inch |
| | HDD SATA III, 7200 rpm, 500 GB, 3.5-inch, business critical |
| | HDD SATA III, 7200 rpm, 500 GB, 3.5-inch |
| | HDD SATA III, 7200 rpm, 250 GB, 3.5-inch |
| | HDD SATA II, 7200 rpm, 2000 GB, 3.5-inch, business critical |
| | HDD SAS, 15000 rpm, 300 GB, 2.5-inch |
| | HDD SAS, 10000 rpm, 600 GB, 2.5-inch |
| | HDD SAS, 10000 rpm, 450 GB, 2.5-inch |
| | HDD SAS, 10000 rpm, 300 GB, 2.5-inch |
| **Hard disk notes** | *Disk imaging software of the customer must be 4k sector size / advanced format ready<br>One Gigabyte equals one billion bytes, when referring to hard disk drive capacity.<br>24/7 ready (business critical HDDs required) |

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| **Drives (optional)** | BD Triple Writer SATA slim (tray) | |
| | DVD-ROM | |
| | DVD Super Multi | |
| | MCR 24in1 & USB 3.0 front con., 3.5" | |
| | MultiCard Reader 24in1 USB 2.0 3.5" | |
| **Interface add on cards/components (optional)** | | |
| | WLAN III, 802.11g/Draft-n (Windows only, dedicated regions only) | |
| | USB 3.0 PCIe x1 | |
| | Serial Interface FH | |
| | Gigabit Ethernet PCIe x1, DS | |
| | Gigabit Ethernet PCIe x1 | |
| | eSATA Interface | |
| | Dual serial card PCIe x1, powered | |
| | Dual serial card PCIe x1 | |
| | Dual 1 Gigabit Ethernet PCIe x4 | |
| | Dual 10 Gigabit Ethernet PCIe x8 | |
| **Base unit** | CELSIUS M720 | CELSIUS M720 power |
| **Mainboard** | | |
| **Mainboard type** | D3128 | |
| **Formfactor** | ATX | |
| **Chipset** | Intel® C602 | |
| **Processor socket** | Socket R | |
| **Processor quantity maximum** | 1 | |
| **Memory slots** | 8 DIMM (DDR3) ECC/non-ECC | |
| **Supported capacity RAM (max.)** | 128 GB | |
| **Memory notes** | In configurations with 4 GB and more the visible memory may be reduced to approximately 3.5 GB or less (for 32-bit operating systems) and configurations with 8 GB the visible memory may be reduced to approximately 7.5 GB or less (depending on system configuration).<br>Large memory may lead to long boot times.<br>When using a 32-bit operating system the maximum of memory might be 900 MB. | |
| **LAN** | Built-in 10/100/1000 MBit/s Intel® 82579 LM | |
| **Audio codec** | Conexant CX20642 | |
| **Audio features** | High Definition Audio | |
| **I/O controller on board** | | |
| **Serial ATA total** | 6 | |
| **thereof SATA III** | 2 | |
| **SATA RAID support** | 0, 1, 10, 5 | |
| **SAS Controller type** | optional upgrade to 4 ports, Intel C604 | |
| **SAS RAID support** | 0, 1, 10 | |
| **Interfaces** | | |
| **Audio: in (rear)** | 1 | |
| **Audio: out (rear)** | 1 | |
| **Audio: in** | 1 | |
| **Audio: out** | 1 | |
| **Internal speakers** | 1 | |
| **USB 2.0 total** | 11 | |
| **USB 3.0 total** | 2 | |
| **USB front** | 4 (2x USB 3.0) | |
| **USB rear** | 6 | |
| **USB internal** | 3, thereof 1 type A | |

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| **Interfaces** | | |
| Mouse / Keyboard (PS/2) | 1 / 1 | |
| Ethernet (RJ-45) | 1 | |
| Interface Module notes | Anytime USB charge functionality | |
| **Drive bays** | | |
| Drive bays total | 12 | |
| 2.5-inch bays | 8 | |
| 3.5-inch internal bays | 4 | |
| 3.5-inch external bays | 2 | |
| 5.25-inch external bays | 2 | |
| Drive bay notes | Up to 8x 2.5-inch HDDs (cold plug) and 1x 2.5-inch SSD or<br>Up to 4x 3.5-inch HDDs (cold plug) and 1x 2.5-inch SSD or<br>Up to 2x 2.5-inch and 2x 3.5-inch HDDs (cold plug) and 1x 2.5-inch SSD | |
| **Slots** | | |
| PCI-Express 3.0 x4 (mech. x8) | 2 x (312 mm) Full height | |
| PCI-Express 3.0 x16 | 2 x (312 mm / ) Full height | |
| PCI-Express 2.0 x4 (mech. x16) | 1 x (312 mm / ) Full height | |
| PCI (32-bit / 33 MHz) | 2 x (312 mm / ) Full height | |
| **Electrical values** | | |
| Power consumption note | 190 W depending on configuration | 250 W depending on configuration |
| Rated voltage range | 100 V - 240 V | 100 V - 240 V |
| Rated frequency range | 50 Hz - 60 Hz | 50 Hz - 60 Hz |
| Operating voltage range | 100 V - 240 V | 100 V - 240 V |
| Operating line frequency range | 50 Hz - 60 Hz | 50 Hz - 60 Hz |
| Max. output of single power supply | 500 W up to 90% efficiency | 800 W up to 90% efficiency |
| **Noise for standard configuration (HDD, ODD, FDD)** | | |
| Noise emission | According to ISO9296 (LpAm at bystander position) | According to ISO9296 (LpAm at bystander position) |
| Noise Operation mode 4: High load | 20 dB(A) | 20 dB(A) |
| Noise Operation mode 5: Office applications | 20 dB(A) | 20 dB(A) |
| Idle mode | 20 dB(A) | 20 dB(A) |
| Office mode | 20 dB(A) | 20 dB(A) |
| Noise notes | depending on configuration | depending on configuration |
| **Dimensions / Weight / Environmental** | | |
| Dimensions (W x D x H) | 186 x 481 x 430 mm | |
| Operating position | Vertical / horizontal | |
| Weight | 18 kg | |
| Weight notes | Actual weight may vary depending on configuration | |
| Operating ambient temperature | 10 - 35 °C | |
| Operating relative humidity | 5 - 85 % (relative humidity) | |

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| **Compliance** | | |
| **Product** | CELSIUS M720 | CELSIUS M720 Power |
| **Model** | ETNA_S-D3128 | |
| **Germany** | GS<br>depending on configuration | |
| **Europe** | CE<br>Nordic Swan | |
| **USA/Canada** | cCSAus<br>FCC Class B | |
| **Global** | RoHS (EU & China)<br>Medical EMC standard IEC60601-1-2 in combination with medical kit<br>Microsoft Operating Systems (HCT / HCL entry / WHQL)<br>ENERGY STAR® 5.0<br>WEEE (Waste electrical and electronic equipment)<br>EPEAT® Gold (dedicated regions) | |
| **Japan** | VCCI | |
| **Russia** | GOST | |
| **South Korea** | KCC | |
| **China** | CCC | |
| **Taiwan** | BSMI | |
| **Saudi Arabia** | SASO | |
| **Compliance link** | http://globalsp.ts.fujitsu.com/sites/certificates | |
| **Security** | | |
| **System protection** | Kensington Lock support<br>Eye for padlock<br>Intrusion switch<br>Integrated cabinet lock (optional) | |
| **Audit proof protection** | Write protect option for the Flash EPROM<br>Boot protection for floppy disk / CD drive and write protection for floppy disk drive<br>Dynamic USB security for full hardware USB protection<br>Control of all USB interfaces<br>Trusted platform module (TPM 1.2)<br>EraseDisk | |
| **Access protection** | User and supervisor BIOS password<br>Access protection via external SmartCard reader (optional)<br>Access protection via internal SmartCard reader (optional) | |
| **Additional Software** | | |
| **Additional software (preinstalled)** | Norton Internet Security (incl. Firewall) 60 days version<br>Don't forget Office. | |
| **Additional software (optional)** | CyberLink PowerDVD BD (playback software for Blu-ray Disc™, only with Blu-ray Disc™ drive / Blu-ray playback is not supported under Windows XP if the system runs on Intel onboard graphics)<br>Drivers & Utilities DVD (DUDVD) Windows® 7 and Windows® XP<br>Nero Essentials (burning software) | |
| **Miscellaneous** | | |
| | Rack mountable (5U) | Rack mountable (5U) |
| **Spare part availability** | 5 years | 5 years |
| **Manageability** | | |
| **Manageability technology** | DeskUpdate Driver management<br>iAMT Intel® Active Manageability Technology v7.1 (not activated, not set up) | |
| **Manageability software** | DeskView Client<br>DeskView Instant BIOS Management<br>DeskView Integration for Symantec Management Platform | |

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| Manageability | |
|---|---|
| **DeskView components** | Inventory Management<br>BIOS Management<br>Driver Management<br>Security Management<br>Alarm Management |
| **Supported standards** | WMI<br>BootP (made4you)<br>PXE<br>WoL (Wake on LAN) |
| **Manageability link** | http://www.fujitsu.com/fts/manageability |

| Input device / components | |
|---|---|
| | Optical USB tilt wheel mouse |
| **Input devices (optional)** | Optical USB/PS2 tilt wheel mouse<br>Space Explorer USB<br>Keyboard |

| Warranty | |
|---|---|
| **Standard Warranty** | 3 years (depending on country) |
| **Service level** | Bring-In / Onsite Service (for countries within region FTS CEMEA&I, for all other countries depending on local regulations, minimum: 3 years material warranty) |
| **Warranty Terms & Conditions** | http://support.ts.fujitsu.com/warranty |

| Maintenance and Support Services - the perfect extension | |
|---|---|
| **Recommended Service** | 9x5, Response Time: Next Business Day |
| **Spare Parts availability** | 5 years after end of product life |
| **Service Weblink** | http://www.fujitsu.com/fts/services/support |

# Recommended Accessories

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|---|---|---|---|
| **MicroSaver Slim** | | The Fujitsu Kensington MicroSaver slim features the patented T-Bar locking mechanism with carbon tempered steel core cable and an external braided steel sheath. The MicroSaver slim is available with Kensington Master Access. This security solution allows you to manage and maintain a limitless number of locks with a master key. | Order Code:<br>S26361-F1650-L200 |
| **Mouse M440 ECO** | | Fujitsu Mouse M440 ECO is made from 100% bio material and has a completely PVC free cable. The elegant M440 ECO works on nearly every surface and follows all your hand movements smoothly and precisely. It features two main buttons and as well as a scroll wheel providing comfortable computing to both right and left-handed users. | Order Code:<br>S26381-K450-L200 |
| **SpaceMouse™ Pro** | | Using the SpaceMouse™ Pro 3D mouse to navigate 3D models or environments is as simple as holding them in your hand. A slight movement of the controller cap delivers easy and precise control. SpaceMouse™ Pro is a companion to the traditional mouse and is operated with the free hand. Your traditional mouse hand is free to select, create and edit. | Order Code:<br>S26381-K459-L100 |
| **Keyboard KBPC PX ECO** | | Fujitsu's KBPC PX ECO keyboard is the perfect contribution to Green IT. The keyboard is made out of 45% renewable raw material and comes with a PVC free USB cable. In addition, the KBPC PX ECO offers first class comfort and ergonomics. It attracts attention with its impressive modern design and useful extras. | S26381-K341-L1** (**: country specific variation) |

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# More information

## Fujitsu OPTIMIZATION Services

In addition to Fujitsu CELSIUS M720, Fujitsu provides a range of platform solutions. They combine reliable Fujitsu products with the best in services, know-how and worldwide partnerships.

**Fujitsu Portfolio**
Build on industry standards, Fujitsu offers a full portfolio of IT hardware and software products, services, solutions and cloud offering, ranging from clients to datacenter solutions and includes the broad stack of Business Solutions, as well as the full stack of Cloud offering. This allows customers to leverage from alternative sourcing and delivery models to increase their business agility and to improve their IT operation's reliability.

**Computing Products**
www.fujitsu.com/global/services/computing/

**Software**
www.fujitsu.com/software/

## More information

Learn more about Fujitsu CELSIUS M720, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.
www.fujitsu.com/fts/CELSIUS

## Fujitsu green policy innovation

Fujitsu Green Policy Innovation is our worldwide project for reducing burdens on the environment.
Using our global know-how, we aim to contribute to the creation of a sustainable environment for future generations through IT.
Please find further information at http://www.fujitsu.com/global/about/environment/

Green Policy Innovation

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